

**Bone Morphogenetic Protein-2 Human Recombinant**

Catalogue Number	IY-261
Synonyms	BMP-2, BMP2A.
Introduction	BMP2 belongs to the transforming growth factor-beta (TGFB) superfamily. Bone morphogenic protein induces bone formation. BMP2 is a candidate gene for the autosomal dominant disease of fibrodysplasia (myositis) ossificans progressiva.
Patent Rights	The sale and/or commercial use of Recombinant Adiponectin is prohibited in the United States of America (U.S.A).
Description	Bone Morphogenetic Protein-2 Human Recombinant produced in E.Coli is a homodimeric, non-glycosylated polypeptide chain containing 2x115 amino acids and having a molecular mass of 26kDa. The BMP-2 is purified by proprietary chromatographic techniques.
Source	Escherichia Coli.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	BMP2 was lyophilized from a concentrated (1mg/ml) sterile solution containing 10mM sodium citrate pH=3.5.
Solubility	It is recommended to reconstitute the lyophilized Bone Morphogenetic Protein-2 in sterile 20mM AcOH (acetic Acid) not less than 100µg/ml, which can then be further diluted to other aqueous solutions.
Stability	Lyophilized Bone Morphogenetic Protein-2 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution BMP2 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). <b>Please prevent freeze-thaw cycles.</b>
Purity	Greater than 95.0% as determined by (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Amino acid sequence	MQAKHKQRKR LKSSCKRHPL YVDFSDVGWN DWIVAPPGYH AFYCHGECPP PLADHLNSTN HAIVQTLVNS VNSKIPKACC VPTELSAISM LYLDENEKVV LKNYQDMVVE GCGCR.
Biological Activity	The ED50 as determined by its ability to induce alkaline phosphatase production by ATDC-5 cells is 0.5-1.0 µg/ml.
Protein content	Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 1.4 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a standard solution of BMP-2 as a Reference Standard.

Usage	Products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.
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